



## Memorandum

To: Jeff Montera, Project Manager

From: Angela Frandsen, Quality Assurance Manager

Reviewed by: Krista Lippoldt, Quality Assurance Coordinator for EPA Region VIII RAC

Date: October 8, 2002 *af*

Subject: Libby CSS QAM checklist for 9/8/02 to 9/21/02

The following summarizes the QA activities that are being verified biweekly by the QAM for the Libby CSS. These activities are discussed in Section 7 of the CSS Final SAP. This memorandum covers the above-referenced two-week time period.

### 1. Field Team Orientation

*(QAM will attach the signature page for each orientation )*

Number of new field team members: 3 (M. Kissel, S. Robles, and K. Taylor)

Number of field team member orientations: 3. See attached signature list.

### 2. Field Form Completion Checks (IFFs and FSDSs)

*(QAM will perform a 10% check on completed field forms sent to Helena for evidence that field team members are doing the required QC checks.)*

Number of IFFs completed: 363 between 9/8 and 9/21/02

Number of IFFs received in Helena: 340 (IFFs shipped to Helena would include those from 9/6 to 9/19 because they are shipped on Fridays)

Number and percent of IFFs checked by the QAM for completeness and correctness: 39 (11.5%); 2 forms were found with problems (see attached list).

Corrective Action: List of IFF forms with problems sent to CSS Task Leader for corrective action - see attached list for details on corrective actions taken

Number and percent of IFFs checked by the CSS task leader for completion and correctness: 382, 100%

Number of FSDSs completed: 621 between 9/8 and 9/21/02

Number of FSDSs received in Helena: 585 (FSDSs shipped to Helena would include those from 9/6 to 9/19 because they are shipped on Fridays)

Number and percent of FSDSs checked by the QAM for completeness and correctness:  
62 (10.6%); no problems found.  
Corrective Action Taken: None required.  
Number and percent of FSDSs checked by the CSS task leader for completion and correctness: 607, 100%  
Comment:

3. Supplemental Verification of Vermiculite Product  
(*CSS field team leader to notify QAM by email if this occurs*)  
Number of occurrences of supplemental verification: None  
Addresses of verifications: NA

4. Screening Field Checks  
(*CSS task leader will check 2% of all properties*)  
Total number of properties sampled up to 9/21/02: 2168  
Total number and percent of screening field checks performed by task leader: 9 checks during this two week time period; 38 (1.8%) properties have been checked overall.  
Comment: CSS TL is making progress in bringing the number of these checks above 2%.

5. Field Audits  
Field audit conducted when and by whom? None.

6. Field QC Samples (July 28 through August 10, 2002)  
Field Duplicates (1/20)  
Number of field samples collected: 1364  
Number of duplicates collected: 71  
Ratio: 1.04/20  
Equipment Blanks (1/day)  
Number of days soil sampling occurred: 12  
Number of equipment blanks collected: 11  
Ratio: 0.92/day  
Aqueous Rinsates (1/day, 3 different weeks throughout field season)  
Number of days expected to collect rinsates during the time frame: 0  
Number of rinsates collected: 0  
Ratio: NA  
Next time period rinsates expected to be collected: Week of October 28  
Total number of rinsates collected since sampling began: 12  
Comment: Starting September 16, the procedure for the collection of field duplicates was changed. Until this time, the field duplicate was taken from two aliquots out of the same mixing bowl, which is better described as a field split. EPA directed CDM to begin collecting duplicates as two distinct samples from the

same source areas. A letter, Modification Form (000057), and an email documenting this change are attached to this memorandum. Also, no corrective action deemed necessary at this time due to the one day that an equipment blank was not collected because it will be made up by taking two equipment blanks on another day.

Preparation Duplicates (1/20)

Number of samples prepared by the CDM laboratory: 732 dried only

Number of preparation duplicates collected: 0

Ratio: 0/20

Preparation Blanks (1/day)

Number of days that samples were prepared by the CDM laboratory: 10

Number of preparation blanks collected: 6 started

Ratio: 0.6/day

Comment: No preparation duplicates were collected and the preparation blank rate is low because of the transition to the new preparation procedure. Samples were also only dried (no sieving, splitting, etc.). Duplicates will be collected under the new procedure. It should also be noted that all samples that have been processed at the CDM Soils Laboratory will need to be reprocessed utilizing the new preparation procedure.

SEM/IR Splits (first 500 samples: 1/5 of IR  $\leq$  0.5%, 1/10 of IR  $>$  0.5% and  $\geq$  1%)

Total number of samples  $\leq$  0.5%: None yet

Number and percent of SEM/IR splits: None yet

Total number of samples  $>$  0.5% and  $\geq$  1%: None yet

Number and percent of SEM/IR splits: None yet

Comment: No laboratory yet under contract to perform soil analysis, either for IR or SEM. Anni Autio (laboratory coordinator) in charge of arranging this once laboratories are subcontracted.

7. Data Entry Checks (10% of Volpe data entry)

Number of data entries: None (no analytical results)

Number and percent of data entries checked: None (no analytical results - data entry to be checked after analytical data are uploaded into database)

Name of person(s) checking data entries: NA at this time

8. Data Validation

Number of samples validated and reviewed and by whom: None, no analytical results yet

Number of sample results rejected: 0 out of 0

9. CDM Document Review

Documents issued to the client: Draft SAP Addendum for the Drive in Theater  
(9/20/02)

Which ones required Editorial Review and was review conducted? Draft SAP, Yes

Which ones required Technical Review and was review conducted? Draft SAP, Yes

Which ones required QA review and was review conducted? Draft SAP, Yes

Field Record of Deviation/Request for Modification forms completed and sent to EPA for approval: Ten forms were sent to EPA for approval: 000049 (requires the printed name of the author on each page of the logbook), 000050 (requires a north arrow on the figures completed on IFFs), 000051 (noted that estimates of primary source volumes and product percentages has not and will not be done because this information cannot be gathered accurately during reconnaissance), 000052 (noted that IFFs are now mailed to Volpe weekly instead of faxed daily), 000053 (sampling progress will be tracked by streets instead of by grid, quadrant, and section numbers because it is more efficient and the necessary information is not available from the county), 000054 (decontamination of soil sampling equipment will be done using a plastic instead of a metal brush and periodically cleaned withalconox), 000055 (grid/quadrant/section removed from FSDS), 000056 (changes to IFF due to other modifications), 000057 (change in field duplicate collection procedure), and 000058 (use of a supplemental IFF for properties that had been sampled under Phase I).

Overall Comments: None

cc: Jim Christiansen, EPA  
Mary Goldade, EPA  
Mark Raney, Volpe  
Krista Lippoldt, CDM  
Dee Warren, CDM  
Dave Schroeder, CDM  
Terry Keller, CDM  
George DeLullo, CDM  
Tim Wall, CDM

## CSS Orientation Program

[illegible]

**IFFs that need to be corrected:**

**Period:** Paperwork received for weeks of 9/8/02 through 9/21/02

IFF BD#'s	10% QC Check problem found	Corrective Action Taken	Date Corrected
BD-001611	p. 3. No answer circled for "Evidence of physical damage?" and "Evidence of water damage?"	Team member S. Olivera visited home to answer questions. Both were answered "NO".	10/8/2002
BD-001961	p. 2. No answer circled for "Years at Current Location"	CSS FTL circled 5-10 based on the note of 1995.	10/8/2002

## CSS INFORMATION FIELD FORM (continued)

Address: 78 G White AveBD# 001611

Data Item	Value	Notes
<b>INDOOR ASSESSMENT</b>		
Vermiculite Insulation Past or Present	Attic: Yes <input checked="" type="radio"/> No <input checked="" type="radio"/> NA Unknown Walls: Yes <input checked="" type="radio"/> No <input checked="" type="radio"/> NA Unknown Basement: Yes No <input checked="" type="radio"/> NA Unknown Crawl Space: Yes <input checked="" type="radio"/> No <input checked="" type="radio"/> NA Unknown Other: _____	Visual confirmation of current presence or absence required for attic. * Fiberglass observed throughout mobile home * No L.V. observed in crawl space
Evidence of Physical Damage?	Yes <input checked="" type="radio"/> No <input checked="" type="radio"/> <sup>50</sup> 10-8-02	
Evidence of Water Damage?	Yes <input checked="" type="radio"/> No <input checked="" type="radio"/> <sup>50</sup> 11-8-02	
<b>OUTDOOR ASSESSMENT</b>		
Libby Amphibole Sources Present	Garden: <input checked="" type="radio"/> Yes <input checked="" type="radio"/> No NA Yard: Yes <input checked="" type="radio"/> No <input checked="" type="radio"/> NA Stockpiles: Yes No <input checked="" type="radio"/> NA Other: _____	* Trace flakes observed in garden area, former garden area, and in planters.
Proximity to Other Properties with Potential Sources of Libby Amphiboles	Next door Within same block Other: <u>NA</u> Unknown	

## CSS INFORMATION FIELD FORM (continued)

Address: 1360 Kootenai River RdBD# 001941

Data Item	Value	Notes
<b>OCCUPANT INFORMATION</b>		
Number of Adults/Employees	0 1 <u>2</u> 3 4 5-15 16-20 21-30 >30	
Number of Children	0 <u>1</u> 2 3 4 Other: _____	
Years at Location	<1 1-5 <u>5-10</u> 10-15 >15 Dw 10-2-0-2	1995
Was the residence/building remodeled?	<u>Yes</u> No If yes, When (years): <2 2-5 <u>&gt;5</u> Where: Attic <u>Living Areas</u> Garage Basement Other: _____	added porch
Has resident/business purchased any Libby vermiculite materials from W.R. Grace in the past?	Yes <u>No</u>	
Has the property at this location been used for a for-profit enterprise of distributing, treating, storing, or disposing of Libby vermiculite?	Yes <u>No</u>	don't know
Are there any known areas of exposed vermiculite?	Yes <u>No</u> If yes, Where: Ceiling Walls Floors Attic Other: _____	



**CSS Task Leader Screening Field Checks (2% checks) for 9/8/02 - 9/21/02**

<b>BD Number</b>	<b>Address</b>	<b>Discrepancy and Corrective Action</b>
BD-002042	332 Yellowtail	No discrepancies found
BD-002226	209 Pinewood	No discrepancies found
BD-002227	66 Pinewood	No discrepancies found
BD-002015	318 Louisiana	No discrepancies found
BD-002179	120 River Run Lane	One discrepancy - forced air instead of radiant. IFF corrected and redistributed.
BD-002275	746 E 5th St	No discrepancies found
BD-002307	152 Pioneer	Answer to vermiculite presence in the crawl space was answered before visual inspection occurred. Team was instructed to make sure they visually confirm the presence or absence before actually recording the answer on the IFF. The answer as circled turned out to be correct, so no change was made to the form.
BD-002030	160 Lower Quartz Creek Rd	No discrepancies found
BD-002344	181 Enders	No discrepancies found

BD- 002179

☐ Soil samples collected (Date: 9/18/02)

**LIBBY ASBESTOS PROJECT**  
**Contaminant Screening Study**  
**Primary Structure and Property Assessment Information Field Form (IFF)**

Field Logbook No.: 100115 Page No.: 143 Site Visit Date: 9/18/02  
 Address: 120 River Ave Lane Structure Description: house  
 Occupant: Edward Lewis (formerly owned by) Phone Number: 293-8742  
 Owner (if different than occupant): N/A Mike + Sandy Chapman Phone Number: N/A  
 Sampling Team: Walter Smith Sr. CM, Victor Contreras Sr. CM, Shaun Oliveira CM  
 Field Form Check Completed by (100% of forms): Shaun Oliveira  
 Screening Field Check Completed by (2% of forms): D. Williams

Data Item	Value	Notes
<b>HOUSE ATTRIBUTES</b>		
Property Description	<u>Residential</u> Industrial Commercial	
Surrounding Land Use	<u>Residential</u> Industrial Commercial School Mining Other: _____	
Year of Construction	<u>1996</u> Unknown	
Square Footage	<u>1625 ft<sup>2</sup></u>	
Construction Material	<u>Wood frame</u> Masonry/Stone Other: _____	
Number of Floors Above Ground	<u>1</u> 2 3 Other: _____	
Number of Rooms Per Floor Above Ground	1: <u>7</u> 2: _____ 3: _____ Other: _____	
Basement	Yes <u>No</u>	<u>Crawl Space</u>
Heating Source	Wood/Coal <u>Electric</u> Propane/Gas Other: _____	
Heat Distribution	<u>Forced air</u> <u>Radiant</u> <u>509/18/02</u> Other: _____	



28 North Last Chance Gulch  
Helena, Montana 59601  
tel: 406 495-1414  
fax: 406 495-1025

September 13, 2002

Jim Christiansen  
United States Environmental Protection Agency  
999 18th Street  
Denver, CO 80202

Subject: Field Duplicate Sample Collection for the Libby Asbestos Site, Remedial Investigation (RI), Contaminant Screening Study (CSS)

Dear Mr. Christiansen:

Based on comments from Mary Goldade and an independent audit performed on the CSS during August of 2002, a change will be made in the collection procedure for field duplicate samples associated with the CSS. Duplicate samples previously collected as part of the CSS were collected by splitting a homogenized sample, and collected using the same sampling equipment. Beginning September 16, 2002, field duplicate samples will be collected using the following procedure:

A parent sample will be collected from up to 5 subsamples in a given land use area. The duplicate of this sample will be collected from the same number (i.e., 5) of randomly located subsamples in the same land use area. These samples will be independently collected with separate sampling equipment. The reason for this change is to better determine the variability of sample results in a given land use area. See Figure 1.

All previously (before September 16, 2002) duplicate samples will be referred to as field splits.

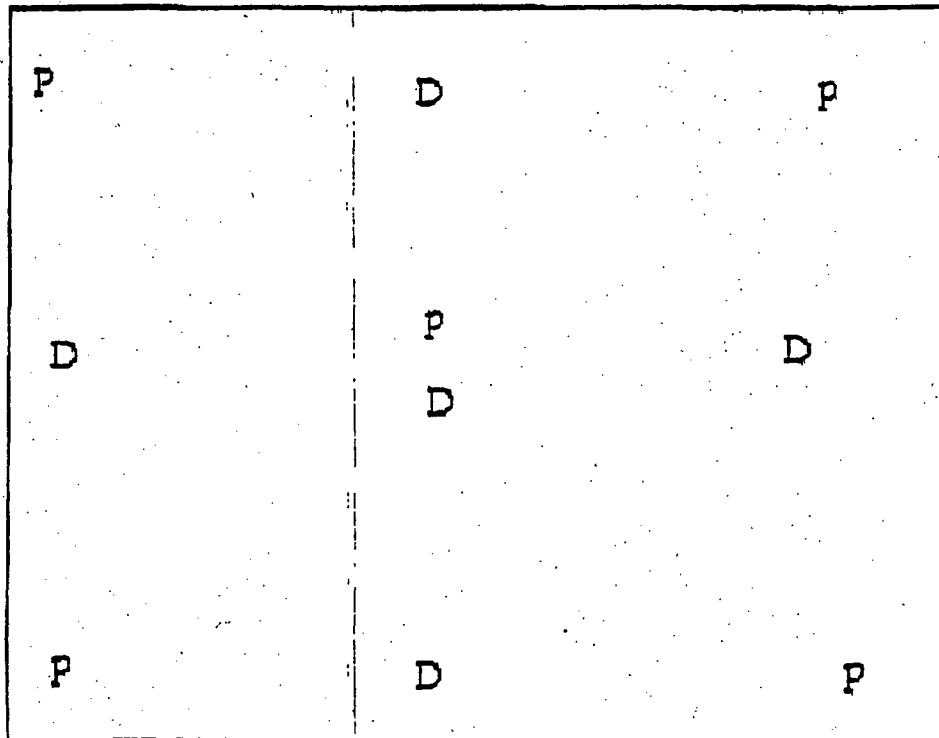
Very truly yours,

Dee Warren  
CSS Task Leader  
Camp Dresser & McKee Inc.  
cc: Mary Goldade (EPA)  
Jeff Montera (CDM)  
Angela Frandsen (CDM)

Document code

Jim Christiansen  
September 12, 2002  
Page 2

Figure 1 Field Duplicate Sample Collection from Land Use Areas



p = Subsample locations of parent sample  
D = Subsample locations of duplicate sample

Frandsen, Angela

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**From:** Montera, Jeff  
**Sent:** Tuesday, September 10, 2002 3:00 PM  
**To:** Warren, Dee; Schroeder, David; Wall, Timothy; MacDonald, Marianne; Knight, David; Keller, Terry; Autio, Anni; Frandsen, Angela; Cook, Thomas  
**Subject:** CSS Field Duplicate Samples

A little background for those of you have not been involved in recent discussions regarding field duplicate samples.

To date CSS sampling teams have been collecting field duplicates by homogenizing 3-5 subsamples, from a specific use area (i.e., garden, front yard, etc.) , and taking two samples from that mix. During the independent field audit Mary Goldade brought up that she did not want that to happen anymore, but instead wanted co-located samples. Co-located samples are essentially two separate samples (both made up of composite samples) which are from the same use area. Dee brought up a good point that this will effect data validation, which incorporates field blanks. I had Krista Lippoldt speak with Mary regarding the issue (see below).

As far as I can tell this will effect a few things:

1. Field teams - will have to start on a particular date taking co-located samples vs. duplicates.
2. The database (V2) - will have to reflect that we have two types of samples. It will be important, for data validation purposes, to be able to identify the field duplicates vs. the co-located samples.
3. eLastic - same thing, we will need to be able to identify field duplicates vs. co-located samples.
4. Mod form? - not sure on this one. The SAP says "co-located" samples. We would, however, need to document somewhere of the change.

Jeff

-----Original Message-----

**From:** Lippoldt, Krista  
**Sent:** Tuesday, September 10, 2002 2:05 PM  
**To:** Montera, Jeff  
**Subject:**

Jeff -

I spoke with Mary Goldade this afternoon. Some changes were discussed regarding field duplicates for the Libby CSS. First of all, she wants field duplicates to be collected as separate samples, colocated in the same area but not the same exact location instead of collecting duplicates as aliquots out of the same mixing bowl. For example, one sample will be collected first from a location and the duplicate may be collected from the same source area (e.g., the garden area) but six inches away. She believes that the preparation duplicates will provide us with information on the homogeneity of the mixed sample and the "new" duplicates will tell us how variable the "area" is. This should be implemented starting Monday, September 16, 2002. Along with this, the field duplicates that have been and will (until Monday) be collected from the same mixing bowl should be called field splits instead of duplicates and the ones collected after Monday will be called field duplicates. Please change this in all databases. There have been no changes to how the samples will be used for validation whether identified as splits or duplicates. If any changes are made, they will be made at a later date after results have been looked at for the two types of "duplicates."

Krista



# Record of Deviation/ Request for Modification

000057

to the  
Libby Sampling and Quality Assurance Project Plan  
Field Activities

**Instructions to Requester: Fax to contacts at bottom of form for review and approval.  
File approved copy with Data Manager and fax copy to SRC.**

Project QAPP (circle one): PE Study Part a (approved 6/00), b (approval pending), c (approval pending)  
Phase I (approved 4/00) Phase II (approved 2/01)  
Removal Action (approved 7/00) CSS (approval 5/02)

Scenario No. (circle one): 1 2 3 4 NA

Requester: Dee Warren  
Company: COM

Title: CSS Task Leader  
Date: 9-13-02

Description of Deviation:

Duplicate sample collection.

Field Logbook and page number deviation is documented on: 100091 pg. 76-77

Reason for Deviation:

Sample collection procedure changed (see attached letter to Jim Christensen)

Potential Implications of this Deviation:

None

Duration of Deviation (circle one):

Temporary

Date(s):

Resident address(es):

Permanent

(complete Proposed Modification Section)

Proposed Modification to SQAPP (attach additional sheets if necessary; state section and page numbers of SQAPP when applicable):

Field duplicate sample collection procedure added to Soil Sample Collection SOP CDM-LIBBY-05

Technical Review:

[Signature]  
(Volpe Project Manager or designate)

Date: 9/13/02

Quality Assurance Review and Approval:

[Signature]  
(Quality Assurance Coordinator or designate)

Date: 9/13/02

Approved By:

[Signature]  
(USEPA OSC or SSC)

Title:

9/17/02

Date:

9/17/02



## CDM Federal Programs Corporation

## Quality Control Review Sheet

Contract Name: <u>RA Region VIII</u>	Project Number: <u>3282-116-PP2-SAP DE</u>
Document Type: <u>SAP Addendum</u>	Number of Pages: _____
Document Title: <u>Draft SAP Addendum for the Drive In Theater</u>	
Initiated By: <u>Krista Lippert</u>	Product Author: <u>K.L.</u>
Date Initiated: <u>9/19/02</u>	Date Due to Client: <u>9/19/02</u>
QCC: _____	Internal Due Date: <u>9/20/02</u>

Reviews Required	Document Version
<input checked="" type="checkbox"/> Editorial	<input type="checkbox"/> Preliminary Draft
<input type="checkbox"/> Regulatory Review	<input type="checkbox"/> Working Draft
<input checked="" type="checkbox"/> Technical	<input checked="" type="checkbox"/> Final Draft
<input type="checkbox"/> Engineering Review	<input type="checkbox"/> Final Document
<input type="checkbox"/> QCC	
<input checked="" type="checkbox"/> QA*	
Estimated Review Hours: Editorial: <u>1/2</u> Technical: <u>1/2</u> QCC: <u>1/2</u> QA: <u>1/2</u> Regulatory: _____	
Engineering: _____ Other: _____	Change Number: _____

\*QA review is required for work plans, field plans, measurement re

Editorial Reviewer: <u>T. Mordill</u>	Due Date: <u>9/19/02</u>	Post-it* Fax Note: 7671	Date: _____	# of pages: _____
Report Item: _____	No Changes	To: <u>Angela</u>	From: <u>Krista</u>	
Overall Organization: _____	<input type="checkbox"/>	Co./Dept.: _____	Co.: _____	
Format: _____	<input type="checkbox"/>	Phone #: _____	Phone #: _____	
Clarity, Consistency, Grammar: _____	<input type="checkbox"/>	Fax #: _____	Fax #: _____	
Reference List/Citations: _____	<input type="checkbox"/>			
Tables/Figures: _____	<input type="checkbox"/>			
QCC Confirmation of Changes: <input type="checkbox"/>				

Technical Reviewer: <u>F. Morris</u>	Due Date: <u>9/19/02</u>	Date Reviewed: <u>9/19/02</u>	Signature: <u>Frank R. Morris</u>
Report Item: _____	No Changes	See Text for Changes	Please Call to Discuss
Intended Scope Stated: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Technical Adequacy: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Calculations Checked: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tables/Figures Support Text: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Conclusions Justified: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
QCC Confirmation of Changes: <input type="checkbox"/>			

Additional Reviewer: <u>G. DeLullo</u>	Date Reviewed: <u>9/24/02</u>	Signature: <u>G. DeLullo</u>
<input type="checkbox"/> QA <input type="checkbox"/> Regulatory <input type="checkbox"/> Engineering <input type="checkbox"/> Other		
REVIEWED ON <u>9/19/02</u>		
Word Processor: _____	Signature: _____	

QCC Final Confirmation Signature: \_\_\_\_\_ Date: \_\_\_\_\_





# Record of Deviation/ Request for Modification

000058

to the  
Libby Sampling and Quality Assurance Project Plan  
Field Activities

**Instructions to Requester: Fax to contacts at bottom of form for review and approval.  
File approved copy with Data Manager and fax copy to SRC.**

Project QAPP (circle one): PE Study Part a (approved 6/00), b (approval pending), c (approval pending)  
Phase I (approved 4/00) Phase II (approved 2/01)  
Removal Action (approved 7/00) CSS (approval 5/02)

Scenario No. (circle one): 1 2 3 4 NA

Requester: Dee Warren  
Company: CDM

Title: CSS Task Leader  
Date: 9-13-02

## Description of Deviation:

USE a Supplemental IFF for properties that had background information  
field forms completed as part of phase I dust sampling program

Field Logbook and page number deviation is documented on: 100091 page 117-118

## Reason for Deviation:

Complete IFFs are not needed for homes where a background IFF  
was completed under phase I

## Potential Implications of this Deviation:

NONE

## Duration of Deviation (circle one):

Temporary Date(s): \_\_\_\_\_  
Resident address(es): \_\_\_\_\_

Permanent (complete Proposed Modification Section)

Proposed Modification to SQAPP (attach additional sheets if necessary; state section and page numbers of SQAPP when applicable):

See attached copy of logbook pages and supplemental IFF

Technical Review: [Signature]  
(Volpe Project Manager or designate)

Date: 9/16/02

Quality Assurance Review and Approval: [Signature]  
(Quality Assurance Coordinator or designate)

Date: 9/16/02

Approved By: [Signature]  
(USEPA OSC or SSC)

Title: RPM

Date: 9/17/02

**Record of Deviation/  
Request for Modification**

000055

to the  
Libby Sampling and Quality Assurance Project Plan  
Field Activities**Instructions to Requester: Fax to contacts at bottom of form for review and approval.  
File approved copy with Data Manager and fax copy to SRC.**Project QAPP (circle one): PE Study Part a (approved 6/00), b (approval pending), c (approval pending)  
Phase I (approved 4/00) Phase II (approved 2/01)  
Removal Action (approved 7/00) CSS (approval 5/02)Scenario No. (circle one): 1 2 3 4 NARequester: Dee Warren Title: CSS Task Leader  
Company: CDM Date: 9/9/02Description of Deviation:  
Modify FSDS to remove requirement of grid/quadrant/sectionField Logbook and page number deviation is documented on: 100091 pg 106-107Reason for Deviation:  
Grid/quadrant/section not being used

Potential Implications of this Deviation:

NONE

Duration of Deviation (circle one):

Temporary

Date(s):

Resident address(es):

Permanent

(complete Proposed Modification Section)

Proposed Modification to SQAPP (attach additional sheets if necessary; state section and page numbers of SQAPP when applicable):

see attached copy of logbook pageTechnical Review:  
(Volpe Project Manager or designate)Date: 9/10/02Quality Assurance Review and Approval:  
(Quality Assurance Coordinator or designate)Date: 9/10/02Approved By: Jin Christiansen  
(USEPA OSC or SSC)Title: RPMDate: 9/17/02



# Record of Deviation/ Request for Modification

000056

to the  
Libby Sampling and Quality Assurance Project Plan  
Field Activities

**Instructions to Requester: Fax to contacts at bottom of form for review and approval.  
File approved copy with Data Manager and fax copy to SRC.**

Project QAPP (circle one): PE Study Part a (approved 6/00), b (approval pending), c (approval pending)  
Phase I (approved 4/00) Phase II (approved 2/01)  
Removal Action (approved 7/00) CSS (approval 5/02)

Scenario No. (circle one): 1 2 3 4 NA

Requester: Dee Warren  
Company: CDM

Title: CSS Task Leader  
Date: 9-9-02

Description of Deviation:

Changes to IFF: 9-9-02 see attached copy of logbook page

Field Logbook and page number deviation is documented on: 100091 pg 107

Reason for Deviation:

Changes to IFF needed due to other modifications

Potential Implications of this Deviation:

NONE

Duration of Deviation (circle one):

Temporary

Date(s):

Resident address(es):

Permanent

(complete Proposed Modification Section)

Proposed Modification to SQAPP (attach additional sheets if necessary, state section and page numbers of SQAPP when applicable):

See copy of log book pages

Technical Review:

(Volpe Project Manager or designate)

Date:

9/10/02

Quality Assurance Review and Approval:

(Quality Assurance Coordinator or designate)

Date:

9/10/02

Approved By:

(USEPA OSC or SSC)

Title:

RPM

Date:

9/17/02



# Record of Deviation/ Request for Modification

000057

to the  
Libby Sampling and Quality Assurance Project Plan  
Field Activities

**Instructions to Requester: Fax to contacts at bottom of form for review and approval.  
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Project QAPP (circle one): PE Study Part a (approved 6/00), b (approval pending), c (approval pending)  
Phase I (approved 4/00) Phase II (approved 2/01)  
Removal Action (approved 7/00) CSS (approval 5/02)

Scenario No. (circle one): 1 2 3 4 NA

Requester: Dee Warren  
Company: Com

Title: CSS Task Leader  
Date: 9-13-02

Description of Deviation:

Duplicate sample collection.

Field Logbook and page number deviation is documented on: 100091 pg 76-77

Reason for Deviation:

Sample collection procedure changed (see attached letter to Jim Christensen)

Potential Implications of this Deviation:

None

Duration of Deviation (circle one):

Temporary

Date(s):

Resident address(es):

Permanent

(complete Proposed Modification Section)

Proposed Modification to SQAPP (attach additional sheets if necessary; state section and page numbers of SQAPP when applicable):

Field duplicate sample collection procedure added to Soil Sample Collection SOP CDM-LIBBY-05

Technical Review:

[Signature]  
(Volpe Project Manager or designate)

Date: 9/13/02

Quality Assurance Review and Approval:

[Signature]  
(Quality Assurance Coordinator or designate)

Date: 9/13/02

Approved By:

[Signature]  
(USEPA OSC or SSC)

Title:

9/17/02

Date:

9/17/02



# Record of Deviation/ Request for Modification

000054

to the  
Libby Sampling and Quality Assurance Project Plan  
Field Activities

**Instructions to Requester: Fax to contacts at bottom of form for review and approval.  
File approved copy with Data Manager and fax copy to SRC.**

Project QAPP (circle one): PE Study Part a (approved 6/00), b (approval pending), c (approval pending)  
Phase I (approved 4/00) Phase II (approved 2/01)  
Removal Action (approved 7/00) CSS (approval 5/02)

Scenario No. (circle one): 1 2 3 4 NA

Requester: Dee Warren  
Company: CDM

Title: CSS Task Leader  
Date: 9-5-02

Description of Deviation:

Decontamination will be ~~to~~ use a plastic brush and paper towels  
maybe used to dry equipment. Also, equipment will periodically be cleaned  
using alcohol.

Field Logbook and page number deviation is documented on: \_\_\_\_\_

Reason for Deviation:

Metal brushes being used were scratching equipment. Plastic  
brushes will remove any asbestos but all equipment will also be cleaned  
using alcohol.

Potential Implications of this Deviation:

NONE

Duration of Deviation (circle one):

Temporary

Date(s): \_\_\_\_\_

Resident address(es): \_\_\_\_\_

Permanent

(complete Proposed Modification Section)

Proposed Modification to SQAPP (attach additional sheets if necessary; state section and page numbers of SQAPP when applicable):

See attached copy of log book page

Technical Review:

(Volpe Project Manager or designate)

Date:

9/9/02

Quality Assurance Review and Approval:

(Quality Assurance Coordinator or designate)

Date:

9/9/02

Approved By:

(USEPA OSC or SSC)

Title:

RPM

Date:

9/17/02



# Record of Deviation/ Request for Modification

000058

to the  
Libby Sampling and Quality Assurance Project Plan  
Field Activities

Instructions to Requester: Fax to contacts at bottom of form for review and approval.  
File approved copy with Data Manager and fax copy to SRC.

Project QAPP (circle one): PE Study Part a (approved 6/00), b (approval pending), c (approval pending)  
Phase I (approved 4/00) Phase II (approved 2/01)  
Removal Action (approved 7/00) CSS (approval 5/02)

Scenario No. (circle one): 1 2 3 4 NA

Requester: Dee Warren  
Company: CDM

Title: CSS Task Leader  
Date: 9/5/02

## Description of Deviation:

Use of grid, quadrant, and section numbers will not be used.  
Tracking progress will be done by streets.

Field Logbook and page number deviation is documented on: 100091 pg 99

## Reason for Deviation:

Current parcel information provided by the city and county does not include all properties. It is more efficient to work on a street basis than a grid.

## Potential Implications of this Deviation:

None

## Duration of Deviation (circle one):

Temporary

Date(s):

Resident address(es):

Permanent

(complete Proposed Modification Section)

Proposed Modification to SQAPP (attach additional sheets if necessary; state section and page numbers of SQAPP when applicable):

See attached copy of log book page

## Technical Review:

[Signature]  
(Volpe Project Manager or designate)

Date: 9/9/02

## Quality Assurance Review and Approval:

[Signature]  
(Quality Assurance Coordinator or designate)

Date: 9/9/02

## Approved By:

[Signature]  
(USEPA OSC or SSC)

Title:

RPM

Date:

9/17/02



# Record of Deviation/ Request for Modification

000052

to the  
Libby Sampling and Quality Assurance Project Plan  
Field Activities

Instructions to Requester: Fax to contacts at bottom of form for review and approval.

File approved copy with Data Manager and fax copy to SRC.

Project QAPP (circle one): PE Study Part a (approved 6/00), b (approval pending), c (approval pending)  
Phase I (approved 4/00) Phase II (approved 2/01)  
Removal Action (approved 7/00) CSS (approval 5/02)

Scenario No. (circle one): 1 2 3 4 NA

Requester: Dee Warren

Title: CSS Task Leader

Company: CDM

Date: 9/5/02

Description of Deviation:

IFFs are mailed to Volpe weekly instead of faxed daily

Field Logbook and page number deviation is documented on: 100091 pg 98

Reason for Deviation:

Number of pages to fax every day can not be done efficiently.

Potential Implications of this Deviation:

IFFs are received up to seven days after they are completed.

Duration of Deviation (circle one):

Temporary

Date(s):

Resident address(es):

Permanent

(complete Proposed Modification Section)

Proposed Modification to SQAPP (attach additional sheets if necessary; state section and page numbers of SQAPP when applicable):

See attached copy of logbook page

Technical Review:

(Volpe Project Manager or designate)

Date: 9/9/02

Quality Assurance Review and Approval:

(Quality Assurance Coordinator or designate)

Date: 9/9/02

Approved By:

(USEPA OSC or SSC)

Title:

RPM

Date:

9/17/02



# Record of Deviation/ Request for Modification

000051

to the  
Libby Sampling and Quality Assurance Project Plan  
Field Activities

Instructions to Requester: Fax to contacts at bottom of form for review and approval.

File approved copy with Data Manager and fax copy to SRC.

Project QAPP (circle one): PE Study Part a (approved 6/00), b (approval pending), c (approval pending)  
Phase I (approved 4/00) Phase II (approved 2/01)  
Removal Action (approved 7/00) CSS (approval 5/02)

Scenario No. (circle one): 1 2 3 4 NA

Requester: Dee Warren Title: CSS Task Leader  
Company: CDM Date: 9-5-02

## Description of Deviation:

Determination of primary source volumes and product percentage as described in Section 4.3.3 / page 4-3 paragraph 2 has not and will not be done.

Field Logbook and page number deviation is documented on: 100091 pg 98

## Reason for Deviation:

Field observations completed during reconnaissance and sampling can not accurately as @ 350' gather this information accurately.

## Potential Implications of this Deviation:

Volume estimates for removal determinations based on CSS information will only be gross estimates

## Duration of Deviation (circle one):

Temporary Date(s): \_\_\_\_\_  
Resident address(es): \_\_\_\_\_

Permanent (complete Proposed Modification Section)

Proposed Modification to SQAPP (attach additional sheets if necessary; state section and page numbers of SQAPP when applicable):

See attached copy of logbook pages

Technical Review: [Signature]  
(Volpe Project Manager or designate)

Date: 9/9/02

Quality Assurance Review and Approval: [Signature]  
(Quality Assurance Coordinator or designate)

Date: 9/9/02

Approved By: Jin Christensen  
(USEPA OSC or SSC)

Title: RPM

Date: 9/17/02





Record of Deviation/  
Request for Modification

000050

to the  
Libby Sampling and Quality Assurance Project Plan  
Field Activities

Instructions to Requester: Fax to contacts at bottom of form for review and approval.

File approved copy with Data Manager and fax copy to SRC.

Project QAPP (circle one): PE Study Part a (approved 6/00), b (approval pending), c (approval pending)  
Phase I (approved 4/00) Phase II (approved 2/01)  
Removal Action (approved 7/00) CSS (approval 5/02)

Scenario No. (circle one): 1 2 3 4 NA

Requester: Dee Warren Title: CSS Task Leader  
Company: CDM Date: 9-8-02

Description of Deviation:  
Require North arrow on figures completed on IFFs.

Field Logbook and page number deviation is documented on: 100091 pg 97 and 98  
Reason for Deviation:  
To require north arrow on figures to help with orientation during  
soil sampling

Potential Implications of this Deviation:  
None

Duration of Deviation (circle one):  
Temporary Date(s): \_\_\_\_\_  
Resident address(es): \_\_\_\_\_  
Permanent (complete Proposed Modification Section)

Proposed Modification to SQAPP (attach additional sheets if necessary; state section and page numbers of SQAPP when applicable):  
See attached copy of logbook entry

Technical Review: [Signature] Date: 9/9/02  
(Volpe Project Manager or designate)

Quality Assurance Review and Approval: [Signature] Date: 9/9/02  
(Quality Assurance Coordinator or designate)

Approved By: [Signature] Title: RPM Date: 9/17/02  
(USEPA OSC or SSC)



# Record of Deviation/ Request for Modification

000049

to the  
Libby Sampling and Quality Assurance Project Plan  
Field Activities

Instructions to Requester: Fax to contacts at bottom of form for review and approval.

File approved copy with Data Manager and fax copy to SRC.

Project QAPP (circle one): PE Study Part a (approved 6/00), b (approval pending), c (approval pending)  
Phase I (approved 4/00) Phase II (approved 2/01)  
Removal Action (approved 7/00) CSS (approval 5/02)

Scenario No. (circle one): 1 2 3 4 NA

Requester: Dee Warren Title: CSS Task Leader  
Company: com Date: 9-5-02

## Description of Deviation:

Require printed name of author on each page of the logbook that is  
copied for placement in residential folders.

Field Logbook and page number deviation is documented on: 100091 page 97

## Reason for Deviation:

Each copied page will stand alone and since these pages are  
separated, the original author can be determined if a signature can not be read.

## Potential Implications of this Deviation:

None

## Duration of Deviation (circle one):

Temporary

Date(s):

Resident address(es):

Permanent

(complete Proposed Modification Section)

Proposed Modification to SQAPP (attach additional sheets if necessary; state section and page numbers of SQAPP when applicable):

See attached copy of logbook entry.

## Technical Review:

(Volpe Project Manager or designate)

Date: 7/9/02

## Quality Assurance Review and Approval:

(Quality Assurance Coordinator or designate)

Jim Christensen

Date: 9/9/02

## Approved By:

(USEPA OSC or SSC)

Title: RPM

Date: 9/17/02